

CLAIMS

What is claimed is:

1. A manufacturing method that polymer chips containing metal or metal oxide nanoparticles, comprising the steps of:
 - pre-mixing at least one metal or metal oxide nanoparticles with at least one polymer material to generate composite material containing metal nanoparticles material and then to be dried; and
 - blending and extruding the composite material as well dispersed metal or metal oxide nanoparticles polymer chips.
2. The manufacturing method that polymer chips containing metal or metal oxide nanoparticles in accordance with claim 1, wherein the metal or metal oxide nanoparticles are dispersed in solution.
3. A polymer chip containing metal or metal oxide nanoparticles component, comprising:
 - at least one metal or metal oxide nanoparticles; and
 - at least one polymer material;
 - wherein the metal or metal oxide nanoparticles disperses within polymer chips.
4. The polymer chip in accordance with claim 3, wherein the proportion of metal or metal oxide nanoparticles and polymer material is smaller than 5% (W/W).
5. The polymer chip in accordance with claim 3, wherein the metal or metal oxide nanoparticles material is selected from one of metal ions, e.g. Au, Ag, Cu, Zn, Pd, Pt, Zr, Fe, Ti, oxide, or composite.
6. The polymer chip in accordance with claim 3, wherein the polymer chip is selected from one of polyamide, polyester, alkene, polyacrylonitrile, polycarbonate, polystyrene, or cellulose.

7. The polymer chip in accordance with claim 6, wherein the polyester is selected from one of polybutylene terephthalate (PBT), polyethylene terephthalate (PET), PPT or polytetramethylene terephthalate (PTT).
8. The polymer chip in accordance with claim 6, wherein the alkene is selected from one of polyethylene (PE), or polypropylene(PP).